MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES SECTION OF THE INTERNATIONAL JOINT COMMISSION AND THE DEPARTMENT OF THE ARMY

ARTICLE I - PURPOSE AND AUTHORITY

This Memorandum of Agreement ("MOA") is entered into by and between the U.S. Department of the Army ("DA") and the United States Section of the International Joint Commission (hereinafter "U.S. Section") ("the parties") for the purpose of establishing a mutual framework governing the respective responsibilities of the parties for the provision of DA studies, planning and other services. This MOA is entered into pursuant to 10 U.S.C 3036(d) and 36 Stat. 2448. For purposes of 10 U.S.C 3036(d) the U.S. Section is an instrumentality of the United States.

ARTICLE II - SCOPE

The DA will provide the services described in paragraphs A, B, and C below under the terms of this MOA.

A. The Mississippi Valley Division, St. Paul District shall assess the change in flood risk and the economic impacts of the suggested alternative regulation bands for Rainy and Namakan Lakes and prepare a report summarizing its findings. The report shall be submitted to the Commission and the International Rainy Lake Board of Control. In preparing its report, the DA will (1) perform a flood/drought risk assessment using existing data from the Status Report -- Review of the IJC Order for Rainy and Namakan Lakes study dated March 3, 1998; (2) perform an incremental economic impact analysis for each of the alternative regulation plans under consideration by the Commission. The assessment shall consider each of the nine impact categories identified in the Board's Plan of Study dated February 1, 1996; and (3) perform a literature search on the economic impacts of each of the alternative regulation plans on the nine impact categories identified in the Board's Plan of Study dated February 1, 1996 and prepare a report summarizing and critiquing the existing information. This work is further described in an April 2, 1998 letter from the International Rainy Lake Board of Control to the Commission. In performing the work described in this paragraph, the DA shall coordinate with First Nations and the municipalities downstream of Rainy Lake.

B. The Mississippi Valley Division, St. Paul District shall examine and report on the causes and effects of damaging floods in the Red River Basin, and make recommendations on means to reduce, mitigate, and prevent harm from future flooding in the Red River Basin. This work is in furtherance of the Reference dated June 12, 1997 from the Governments of the United States and Canada to the Commission. This work consists of obtaining the data necessary to complete the evaluation, compiling the data, and preparing a report. The report shall include recommendations on alternatives for implementing a flood damage reduction program on the Red River. In conducting its work, the DA shall coordinate closely with members of the

International Red River Basin Task Force, its sub-group members and contractors, and other affiliates of the Task Force.

C. The North Atlantic Division, New England District shall plan and conduct a meeting to be held in the summer of 1999, and prepare a brief written report to the U.S. Section on the results of the meeting and the hosting Boards' recommendations arising from the that meeting. The meeting will be hosted jointly by the International St. Croix River Board of Control and the Advisory Board on Pollution Control--St. Croix River. The purpose of the meeting is (1) to explore means of implementing the recommendations regarding public involvement from the "Review of Orders of Approval, St. Croix River Basin, Maine and New Brunswick, Steering Committee Final Report,' dated November 1977; (2) to consider suggestions received during the public comment period for the Steering Committee Final Report concerning means of public involvement in Commission activities; (3) to determine appropriate implementation by the Boards of recommendations arising from the 1997 conference hosted jointly by the two Boards and the St. Croix International Waterway Commission; and (4) to determine the means of implementing Commission-accepted Board recommendations regarding the Boards' mandate and membership arising from the Commission's July 10, 1998 letter to the Boards and subsequent discussions. The Boards shall coordinate with the Commission in conducting this work. A brief written status report shall be provided to the U.S. Section by March 19, 1999, and the report with recommendations shall be submitted within three months after the meeting.

ARTICLE III - INTERAGENCY COMMUNICATIONS

To provide for consistent and effective communication between the DA and the U.S. Section, each party shall appoint a Principal Representative to serve as its central point of contact on matters relating to this MOA.

ARTICLE IV - RESPONSIBILITIES OF THE PARTIES

A. Responsibilities of the Department of the Army

The DA shall provide the U.S. Section with goods or services in accordance with the purpose, terms, and conditions of this MOA.

The DA shall use its best efforts to provide goods or services either by contract or by inhouse effort.

B. Responsibilities of the U.S. Section

The U.S. Section shall pay all costs associated with the DA's provisions of goods or services under this MOA.

ARTICLE V - FUNDING

Upon execution of this agreement, the U.S. Section is providing the following funds to

the DA for the goods and services which the DA will provide under this MOA: \$46,400 for Article II, Section A; \$50,000 for Article II, Section B; and \$8,000 for Article II, Section C.

The U.S. Section shall pay all costs associated with the DA's provision of goods or services under this MOA.

If the DA at any time forecasts its actual costs for services identified in Article II will exceed the amount of funds available, it shall promptly notify the U.S. Section of the amount of additional funds necessary to complete the work under Article II. The U.S. Section shall either provide the additional funds to the DA, or require that the scope of work be limited to that which can be paid for by the then-available funds, or direct termination of the work.

Within 90 days of completing the work under Article II, the DA shall conduct an accounting to determine the actual costs of the work. Within 30 days of completion of this accounting, the DA shall return to the U.S. Section any funds advanced in excess of the actual costs as then known, or the U.S. Section shall provide any additional funds necessary to cover the actual costs as then known.

ARTICLE VI - APPLICABLE LAWS

This MOA and all documents and actions pursuant to it shall be governed by the applicable statutes, regulations, directives, and procedures of the United States. Unless otherwise required by law, all contract work undertaken by the DA shall be governed by DA policies and procedures.

ARTICLE VII - DISPUTE RESOLUTION

The parties agree that, in the event of a dispute between the parties, the U.S. Section and the DA shall use their best efforts to resolve that dispute in an informal fashion through consultation and communication, or other forms of non-binding alternative dispute resolution mutually acceptable to the parties. The parties agree that, in the event such measures fail to resolve the dispute, they shall refer it for resolution to the Office of Management and Budget.

ARTICLE VIII - RESPONSIBILITY FOR COSTS

The parties agree that DA has no appropriations which may legally be made available for the services to be performed by DA under this agreement, other than the funds provided by the U.S. Section. The parties recognize that the funds currently available from the U.S. Section for the services identified in Article II are limited to \$104,400. If the actual costs for DA's provision of services exceeds this amount, the U.S. Section shall remain responsible as the program proponent for providing such funds as are necessary to discharge this responsibility, subject to available appropriations. If the U.S. Section has no funds legally available to discharge this responsibility, including such funds as may legally be made available through transfers, reprogramming, or others means, they remain responsible for requesting the Department of State seek additional funds from Congress for such purpose, although nothing in this MOA shall be

construed to imply that Congress will appropriate funds sufficient to meet the deficiency.

The U.S. Section's liability for costs resulting from claims filed under the Federal Tort Claims Act is limited to \$2,500.00 per claim.

ARTICLE IX - PUBLIC INFORMATION

Justification and explanation of the U.S. Section's programs before Congress and other agencies, departments, and offices of the Federal Executive Branch shall be the responsibility of the U.S. Section. The DA may provide, upon request, any assistance necessary to support the U.S. Section's justification or explanations of the U.S. Section's programs conducted under this MOA. In general, the U.S. Section is responsible for all public information. The DA may make public announcements and respond to all inquiries relating to the ordinary procurement and contract award and administration process. The U.S. Section or the DA shall make its best efforts to give the other party advance notice before making any public statement regarding work contemplated, undertaken, or completed pursuant to SAs under this MOA.

ARTICLE X - MISCELLANEOUS

A. Other Relationships or Obligations

This MOA shall not affect any pre-existing or independent relationships or obligations between the International Joint Commission, the U.S. Section and the DA.

B. Survival

The provisions of this MOA which require performance after the expiration or termination of this MOA shall remain in force notwithstanding the expiration or termination of this MOA.

C. Severability

If any provision of this MOA is determined to be invalid or unenforceable, the remaining provisions shall remain in force and unaffected to the fullest extent permitted by law and regulation.

ARTICLE XI - AMENDMENT, MODIFICATION AND TERMINATION

This MOA may be modified or amended only by written, mutual agreement of the parties. Either party may terminate this MOA by providing written notice to the other party. The termination shall be effective upon the sixtieth calendar day following notice, unless a later date is set forth. In the event of termination, the U.S. Section shall continue to be responsible for all costs incurred by the DA under this MOA and for the costs of closing out or transferring any on

ARTICLE XII - EFFECTIVE DATE

This MOA shall become effective when signed by both the U.S. Section and the DA.

U.S. International Joint Commission - United States Section

GERALD E. GALLOWAY

Secretary

DATE: 30 Sep 98

U.S. Department of the Army

RUSSELL L. FUHRMAN

Major General, USA

Director of Civil Works

MEMORANDUM OF AGREEMENT BETWEEN

THE UNITED STATES SECTION OF THE INTERNATIONAL JOINT COMMISSION AND

THE DEPARTMENT OF THE ARMY Amendment 1

ARTICLE II - SCOPE

Insert new paragraph D. as follows:

D. The Institute for Water Resources (IWR) shall provide support to the U.S. Section with in-house resources for a workshop with approximately 25 participants to be held by the International Joint Commission on September 29-30 in Windsor, Ontario. The purpose of the workshop is to give special consideration to determining cumulative impacts of changes in water levels and flows in the Great Lakes basin that could be or are occasioned by diversions, removals, withdrawals and consumptive use, and to develop advice and information the U.S. Section might offer to governments on: (1) research priorities with an emphasis on ecological aspects of cumulative impact assessment, and (2) how the jurisdictions may evaluate the cumulative effects of any factors that may affect water levels and flows in the Great Lakes basin (or at least begin developing the questions that they should be asking.) IWR's specific responsibilities shall be to: (1) Assist with the identification of 10 experts in the field of ecological impact assessment, five from Canada and five from the United States. (2) Attend the workshop and prepare detailed notes for immediate use by the Commission in obtaining workshop participants' comments on the written outcome of the workshop and in preparing the official written workshop results. The detailed notes prepared by IWR should identify, to the extent possible, expert opinion on the impacts of current and potential consumption and removals on the ecological ecosystem of the Great Lakes, and expert opinion on actions that should be taken by governments to facilitate continuing impact assessment of diversions, removals, withdrawals, and consumptive use. (3) Assist the Commission in report preparation and followup actions, as requested.

ARTICLE V - FUNDING

In the first paragraph, last line, after Section B: delete "and", and in the first paragraph, last line, after Section C: delete the period and insert "; and \$5,000 for Article II, Section D.".

ARTICLE VIII - RESPONSIBILITY FOR COSTS

II C. Intermedianal Isint Commission

In the first paragraph, line 4: delete "\$104,400." and insert "\$109,400.".

This Amendment 1 shall be effective when signed by both the U.S. Section and the DA.

U.S. International Joint Commission	Department of the Army
United States Section	
	78.V1Wh
GERALD E. GALLOWAY	HANS A. VAN WINKLE
Secretary	Brigadier General, USA
	Deputy Commanding General for Civil Works
DATE: 23 SEP 1999	DATE: 2 3 SEP 1997

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MEMORANDUM OF AGREEMENT BETWEEN

THE UNITED STATES SECTION OF THE INTERNATIONAL JOINT COMMISSION AND

THE DEPARTMENT OF THE ARMY Amendment 2

ARTICLE II - SCOPE

Amend paragraph B. to add: "A final report of recommendations will be provided to the U.S. Section of the IJC by November 30, 1999."

(SO 1761900441) Insert new paragraphs E. and F. as follows:

> E. The Institute for Water Resources (IWR) shall develop for the U.S. Section of the IJC and its international Boards a plan and report on how the IJC could improve its communications with those affected by the actions of the IJC. This plan and report should include recommended innovative communications tools, such as the STELLA model; an analysis of U.S. Section and Board communications strategy and advice on methods to improve communications; and a summary of analyses conducted and recommendations for improvement offered. In coordination with the U.S. Secretary of the IJC or his designated representative, IWR shall prepare an expenditure plan and on a monthly basis review this plan with the IJC.

(SO 1761 F. 900442)

The Engineering Research and Development Center shall prepare an analysis to assess the impacts of water removal from the Great Lakes. The analysis should be based on input from an advisory group with four or five members, to include both government employees and civilian experts. The analysis shall: (1) examine the cumulative effects of the existing rate of water consumption and diversion; (2) examine potential effects of additional water consumption and diversion; and (3) be summarized in a brief report on its findings to the U.S. Section of the IJC by November 30, 1999.

ARTICLE V - FUNDING

In the first paragraph, last line, after Section C: delete "and", and in the first paragraph, last line, after Section D: delete the period and insert "; \$40,000 for Article II, Section E; and \$40,000 for Article II, Section F.".

ARTICLE VIII – RESPONSIBILITY FOR COSTS

In the first paragraph, line 4: delete "\$109,400." and insert "\$189,400.".

This Amendment 2 shall be effective when signed by both the U.S. Section and the DA.

U.S. International Joint Commission
United States Section
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GERALD E. GALLOWAY

Secretary

Department of the Army

Brigadier General, USA

Deputy Commanding General for Civil Works

DATE: 30 Sep 59

3 0 SEF 1999 DATE:

MEMORANDUM OF AGREEMENT BETWEEN

THE UNITED STATES SECTION OF THE INTERNATIONAL JOINT COMMISSION AND

THE DEPARTMENT OF THE ARMY Amendment 3

ARTICLE II – SCOPE

Insert new paragraphs G. and H. as follows:

- G. The Great Lakes and Ohio River Division, Detroit District, in coordination with the International Upper Great Lakes Plan of Studies Team, shall develop a Plan of Study for the Upper Great Lakes. The purpose of the study is to (i) review the operation of the structures controlling the outflows from Lake Superior in the light of the impacts of those operations on water levels, flows, and consequently affected interests in the Upper Great Lakes system from Lake Superior downstream through Lake Erie, including the environment; (ii) assess whether changes to the Orders or regulation plan are warranted to meet contemporary and emerging needs, interests and preferences for managing the system in a sustainable manner, including under possible scenarios of climate change; and (iii) evaluate any options identified to improve the operating rules and criteria governing Lake Superior outflow regulation. In conducting its work, the DA shall seek input from the public and appropriate experts. The DA shall complete this work by May 31, 2002.
- H. The North Atlantic Division, New England District, shall plan and conduct a scientific workshop to be held in the fall of 2002 in the St. Croix River basin, Maine and New Brunswick, and prepare a brief written report to the U.S. Section on the results of the meeting and the hosting Board's recommendations arising from that meeting. The meeting will be hosted by the International St. Croix River Board. The purpose of the meeting is to explore the state of the St. Croix River ecosystem, including the estuary and adjacent marine waters, help raise the understanding of current trends, and help focus future research and studies. The DA shall submit its report to the U.S. Section by January 31, 2003.

ARTICLE V - FUNDING

In the first paragraph, last line, after Section E: delete "and", and in the first paragraph, last line, after Section F: delete the period and insert "; \$74,000 for Article II, Section G; and \$32,000 for Article II, Section H.".

ARTICLE VIII – RESPONSIBILITY FOR COSTS

In the first paragraph, line 4: delete "\$189,400." and insert "\$295,400."

This Amendment 3 shall be effective when signed by both the U.S. Section and the DA.

International Joint Commission United States Section

GERALD E. GALLOWAY

Secretary

DATE: 14 Sep 81

Department of the Army

ROBERT H. GRIFFIN Brigadier General, USA Director of Civil Works

DATE: 10 Sep 61

MEMORANDUM OF AGREEMENT

BETWEEN

THE UNITED STATES SECTION OF THE INTERNATIONAL JOINT COMMISSION AND

THE DEPARTMENT OF THE ARMY Amendment 4

ARTICLE II - SCOPE

Insert new paragraph I. as follows:

- I. The Mississippi Valley Division, St. Paul District, shall undertake efforts aimed at promoting a better understanding of flood risks and flood impacts in the Rainy River basin. These efforts shall include the following.
- (1) Examine regional climate trends in the Rainy basin, drawing primarily upon work that currently exists, coordinating with the U.S. National Atmospheric and Oceanic Administration and other similar agencies, and compiling this information into a brief document.
- (2) Drawing upon existing work where possible and coordinating with the U.S. Federal Emergency Management Agency,
 - (A) determine 100-year flood levels for Rainy, Namakan, and Kabetogama Lakes;
 - (B) determine the approximate recurrence interval of the 2001 and 2002 floods on Rainy, Namakan, and Kabetogama Lakes.
- (3) In coordination with emergency management personnel in the United States and Canada, and using the best available information, provide a geographic information system for Rainy, Namakan, and Kabetogama Lakes identifying
 - (A) the approximate extent of the 1950 flood and structures built since 1950;
 - (B) areas flooded during the 2001 and 2002 floods, and existing structures at risk from the 100-year flood.

In undertaking these efforts, the DA shall coordinate with members and support staff of the International Rainy Lake Board of Control. By September 30, 2002, the DA shall provide a short written report describing the 2002 flood event. This report may be included as an additional section to the International Rainy Lake Board of Control's 2002 Annual Report. By March 14, 2003, the DA shall provide a second report on the results of the above efforts, including any conclusions or recommendations stemming from them.

ARTICLE V - FUNDING

In the first paragraph, last line, after Section G: delete "and", and

in the first paragraph, last line, after Section H: delete the period and insert "; and \$20,000 for Article II, Section I."

ARTICLE VIII – RESPONSIBILITY FOR COSTS

In the first paragraph, line 4: delete "\$295,400," and insert "\$315,400."

This Amendment 4 shall be effective when signed by both the U.S. Section and the DA.

International Joint Commission

United States Section

GERALIO E. GALLOWA

DATE: 30 Cp ol

Department of the Army

ROBERT H. GRIFFIN Major General, USA

Director of Civil Works

DATE: 16 Sep 02